

## Close-up Photography Workshop

### Top tips for better macro images

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#### Close-up equipment

Excellent close-up shots can be taken using pretty much any camera. Ideally though, an SLR<sup>1</sup> coupled with a macro lens<sup>2</sup> is likely to produce the best results as this allows the greatest flexibility for the photographer. However, don't be put off if you don't have such kit. With care and creativity, stunning results can be achieved with other camera and lens combinations of much lower cost (and weight). Just remember three important things – '*composition*', '*lighting*' and '*detail*'. Two additional attributes the photographer needs for excellent close-up images are 'patience' and 'persistence', i.e. don't give up....

Other useful kit:

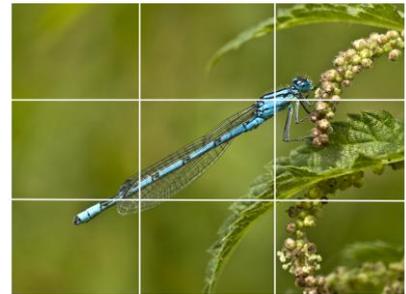
- Extension rings (between camera and lens) – increase magnification.
- Close-up lenses (often called close-up filters) – thin magnifying lenses that screw on to end of main lens.
- Reversed lens – for standard prime lenses (the wider the angle the better, but not zooms) – enables very close focussing. Reversing adaptors/rings are available for many different manufacturer combinations.

#### Composition

Select subject and place carefully within the frame – better results are usually obtained from a pre-planned rather than a random shoot. However, luck helps.....!

*Things to consider:*

- 'Rule of thirds' – try and place the main point of interest where a third of the vertical, and/or horizontal, partitions the frame thus →
- Distractions – check that background and extraneous clutter is not intrusive (see also 'depth of field' under '**Detail**'), leading the eye away from the main subject. Be prepared to do a bit of 'gardening'.
- Angle of view – be prepared to get 'down-n-dirty' – a photo taken at the horizontal is often more effective than from above or below.
- Moisture – many macro images, especially of insects, plants etc., can be enhanced with a few water droplets using a hand atomiser. A cool or misty early morning is good for natural moisture, or after rain.
- Step back – getting very close to the subject isn't always necessary for impact if the main point of interest is carefully placed within the frame.
- Cropping – in processing be prepared to chop bits off the image border if necessary, either to place the subject more appealingly in the frame or to close in on it – with enough pixels (10+ mp) a reasonable degree of magnification can often be achieved quite successfully from the original image.



#### Lighting

Arguably, the most important factor in securing a great shot. If the lighting isn't right, nothing else matters (personal opinion).

*Types of lighting:*

- Natural daylight – if dark then large aperture, slow shutter speed, high ISO<sup>3</sup> or combination of these may be needed. Try backlighting for effect.

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<sup>1</sup> SLR = Single Lens Reflex – image through lens to eye via a mirror which is raised when the photo is taken.

<sup>2</sup> Macro lenses with flat-field optics are designed for close-up work, i.e. all of the frame is in focus from edge to centre.

<sup>3</sup> ISO = International Standards Organisation (=ASA in film) – measures sensitivity of sensor or film – the lower the number the less sensitive your camera is to effects of light and the finer the grain or 'noise'.

- Flash ('strobe' in North America) – gives an image that extra 'umph' and allows use of small apertures, fast shutter speeds and low ISO settings. Often essential outdoors to freeze moving subjects, but can be harsh, especially on reflective surfaces, e.g. beetles.
  - Built-in flash – can be harsh, particularly on compact cameras as rarely adjustable. Can be used to trigger off-camera or remote flash units (check that the unit is capable of remote triggering).
  - Off-camera flash – wireless or cable-operated units, single or multiple – gives much more flexibility in controlling where the light impacts the subject.
- Domestic artificial light – incandescent/tungsten cooler, so output warmer (yellow) – fluorescent warmer, so output cooler (blue to green) – subsequent incorrect white/colour balance can often be corrected in processing – easier with Raw<sup>4</sup> files.
- Pro studio lighting – anything possible, but can be very expensive!

*Aids to good lighting:*

- Diffusers and reflectors – even out light and reduce shadows – easy DIY (tissue paper and white card).
- Snoot – concentrates the light from flash onto a specific area of the subject (rolled cardboard).
- Light tent – useful for diffusing light all round the subject – eliminates shadows – requires multiple light sources for best effect.
- Backlighting – useful for effect – any light source will do from sunlight to artificial – best when angled.
- Experiment... – try many combinations to get a favourite result – take lots of shots.

Note: detail can sometimes be retrieved in an under-exposed photo using processing software, but a 'noisy'<sup>5</sup> image may result. An over-exposed image can rarely be rescued satisfactorily.

## Detail

Focussing and image sharpness are extremely important – out of focus or blurred points of interest in an image will generally lead to disappointment, unless there is 'arty' intent of course!

*Tips for a sharper image:*

- Remember: depth of field (or focus) is tiny with close-up photography - small lens aperture (high f no.) = greater focus depth (more light needed); large aperture (low f no) = shallow focus depth (less light needed).
- Focussing – manual better than auto – better control for what you want in focus.
- Focus point – eyes – if the subject has them, focus on them; otherwise focus on main point of interest
- Sharpness - reduce vibration and blur as much as possible.
  - Image stabilisation (IS or VR) – use it if you have it (except with tripod; see next).
  - Tripod, monopod, bean bag etc.; use if you can (if no vibration likely, e.g. with a tripod, turn off IS).
  - Fast shutter speeds negate vibration, but lighting may be tricky (see above) – use flash where possible, but beware of reflections.
  - Remote shutter release – wireless or cable, or use camera's own timer release.
  - Lock up the mirror – SLRs only (using live-view automatically locks up the mirror).
  - Don't breath....!

## Suggested reading

Heather Angel – *Digital Outdoor Photography: 101 Top Tips*. Lark Books (publisher).

Robert Thompson – *Close-up & Macro Photography: A Photographer's Guide*. David & Charles (publisher).

George McCarthy – *Photographing Fungi in the Field*. Guild of Master Craftsmen (publisher).

John Bebbington – *Insect Photography: Art & Techniques*. Crowood (publisher).

Look out for articles on close-up and macro photography in magazines.

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<sup>4</sup> Raw files contain the actual raw data received by the sensor; uncompressed and lossless, and not processed in camera – they have to be processed by computer, but are more flexible than JPEGs for producing the final image.

<sup>5</sup> 'Noise' = electronic equivalent to grain with film – several types – increases with the sensitivity setting of camera (ISO), length of the exposure, low light levels and sometimes temperature – varies with camera model and sensor type.